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19 June 2008

Company Announcements Office
Australian Stock Exchange Limited
Exchange Centre
Level 4, 20 Bridge Street
Sydney NSW 2000

Via electronic lodgement

Dear Sir/Madam,

Please find the following announcement for immediate release to the market. This announcement is made on behalf of the Biglyi Joint Venture partners being Energy Metals Limited with 53.7%, Valhalla Uranium Limited (a subsidiary of Paladin Energy Limited) with 42.1% and Southern Cross Exploration NL with 4.2%.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Lindsay Dudgefield'.

LINDSAY DUDFIELD
Executive Director.

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Via electronic lodgment

BIGRLYI TESTWORK CONFIRMS EXCELLENT URANIUM RECOVERIES

Energy Metals, as manager of the Bigrlyi Joint Venture, is delighted to announce the results of recent metallurgical testwork conducted on samples from the Bigrlyi Uranium and Vanadium Project in the Northern Territory. Key points include:

- **Acid leaching confirmed as favoured process route**
- **Base case tests recover 98% uranium within 24 hours**
- **Excellent recoveries (94-95%) within 8-12 hours at coarser grind sizes and with reduced acid consumption**
- **Lower acid costs will impact positively on the Revised Scoping Study (now underway)**

Discussion

The current resource at Bigrlyi (March 2008) totals **23.4 million pounds (lbs) of U₃O₈ and 43.7 million lbs of V₂O₅** (500ppm U₃O₈ cut-off grade) with good potential to further increase the resource, both at depth and along strike.

An Initial Scoping Study completed in November 2007 and based on the now superseded March 2007 resource (14.3M lbs U₃O₈ and 16.3M lbs V₂O₅) indicated the Bigrlyi Project has the potential to produce 8.4M lbs of U₃O₈ and 7.0M lbs of V₂O₅ over a mine life of 8 years.

Metal recoveries and acid consumption rates used in the Initial Scoping Study were based on historic metallurgical testwork which recorded recoveries of up to 95% uranium and 70% vanadium on finely ground ore with relatively high acid consumption (approximately 70% of total consumable costs). Most of this testwork was undertaken on samples from the Anomaly 15 deposit (comprises 31% of the current Bigrlyi resource), with no testwork undertaken on the Anomaly 4 deposit (comprises 59% of current resource).

A 200kg sample of crushed, mineralised material from Anomaly 4 was submitted to the Australian Nuclear Science and Technology Organisation (ANSTO) early 2008. Mineralogical analysis on this sample confirmed that major uranium bearing minerals are uraninite and coffinite, and the major vanadium bearing mineral is nolanite.

ANSTO further prepared the sample to obtain 3 size fractions (grind sizes) for leach testing viz. fine (P_{80} -76 μm), medium (P_{80} -173 μm) and coarse (P_{80} -285 μm).

Dilute leach tests on pulverised samples determined the upper limits of extraction under typical plant leaching conditions as 99% for uranium and 78% for vanadium, whilst base case acid leach tests (pH 1.5, 50°C, 50 wt% slurry, ORP=500mV, fine grind) recorded extraction rates of 98% uranium and 59% vanadium.

A number of tests were conducted using a range of variables (grind size, acid addition, pH, ORP and leach time) to optimise acid leach conditions. Important observations from this work include:

- Uranium extraction was rapid under all conditions tested, with leaching essentially complete within 8 hours;
- The rate of uranium extraction was largely independent of leach acidity over the range of conditions tested, whereas acid consumption decreased markedly at higher pH;
- Leaching at a lower pH increases vanadium extraction;
- Leaching at a lower controlled ORP (low oxidant consumption) did not significantly decrease the extraction of uranium or vanadium;
- A coarser grind decreases acid consumption considerably, without a decrease in uranium extraction. However much of the vanadium is locked in gangue minerals and not accessible without fine grinding.

Based on this analysis optimum leach conditions (pH 1.8, 50°C, ORP=450 mV, coarse grind size) yielded extraction rates of **94-95% uranium and 45% vanadium**.

The viability of alkaline leaching as an alternative process route was also investigated. Alkaline leaching (24 hours) on fine grind sizes extracted 93% of uranium but only 21% of vanadium. ANSTO notes that the higher cost of alkali versus acid reagents necessitates maximum recovery by recycling, which can result in the build-up of contaminants and issues with water balance. There is also greater potential for vanadium contamination of the uranium product in an alkaline flowsheet.

Conclusions

Recent metallurgical testwork has confirmed conventional acid leaching as the favoured process route at Bigrlyi..

The ability to reduce acid consumption to levels 40% lower than levels of acid consumption assumed for the Initial Scoping Study, without reducing uranium extraction rates, is highly significant as acid costs in the Initial Scoping Study were approximately 70% of the total cost of consumables. Relative to this advantage, the reduction in vanadium recovery rates is considered immaterial to project economics.

A Revised Scoping Study based on the current (March 2008) Bigrlyi resource has commenced, with the combination of a substantially larger resource base and lower acid consumption expected to impact positively on project economics.



LINDSAY DUDFIELD
Executive Director.

The information in this announcement that relates to metallurgical testwork is based on information compiled by Mr **Peter Banovich**, who is a Member of The Australasian Institute of Mining and Metallurgy. Peter Banovich is a full-time employee of Metallurgical Project Consultants Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Banovich consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.